

Claims: I claim

1. In software subject to copying, redistributing or purchasing by end users, a method of tracking lineages of copying, reproduction and/or purchasing, said method comprising
  - the creation of a plurality of mint copy software-instances, said mint copy software-instances containing a Stable Portion responsible for the necessarily stable functions of the software, and a Variable Portion which will be modified in copies derived from said mint copy
  - a means of modifying said Variable Portion on occasions of interest such that the contents of the Variable Portion in derivative copies will contain idiosyncratic information from which the parentage of said derivative copies can be *ascertained*
2. the method according to Claim 1 wherein said lineage-relevant information is appended to said Variable Portion
3. the method according to Claim 2 wherein said lineage-relevant information is encrypted
4. the method according to Claim 1 wherein said lineage-relevant information is transmitted to a Central Database while a subset of said lineage-relevant information is stored in the Variable Portion, said information stored in the Variable Portion being adequate for the retrieval of said Centrally stored information
5. the method according to Claim 4 wherein said information stored in the Variable Portion is derived from the context in which the software is operated, whereby said context-derived information may be part of the usual transmission of information from customer to Central Password Vending System.
6. the method according to Claim 4 wherein said information stored in the Variable Portion is assigned by the Central Database, whereby the uniqueness of the software-instances can be assured

7. the method according to Claim 4 wherein said information stored in the Variable Portion is random, pseudo-random, or otherwise idiosyncratic, whereby software instances can usually be distinguished from each other
8. the method according to claim 4 wherein said information transmitted to said Central Database is transmitted during purchasing events
9. the method according to claim 4 wherein said information transmitted to said Central Database is transmitted through network-based channels of communication from software-instance to central server
10. the method according to Claim 1, and alternatively to Claim 2, wherein said lineage-relevant information consists of changes to random, pseudo-random, or idiosyncratically selected locations in the Variable Portion, whereby said Variable Portion need not be made to grow open endedly, if it is of adequate size
11. the method according to Claim 10, wherein said idiosyncratic mutations are assigned by the Central database, whereby the uniqueness of the software-instances can be assured
12. the method according to Claim 10, wherein said Variable Portion is partitioned into distinct regions each of which undergoes a mutation, whereby said adequate size of the Variable Portion may be reduced
13. the method according to Claim 10 wherein said idiosyncratic mutations are constrained not to erase traces of earlier mutations
14. the method according to Claim 10 wherein some of the data in the Variable Portion is used to encode parameters which affect the utility of the software product, whereby a natural-selection-like process is enabled
15. the method according to Claim 1 wherein said occasion of interest can be the reproduction of a software-instance, said method comprising

the storage of context information in a location in a location which is protected from mutation, said location being an Auxiliary Region in the Variable Portion, the Central Database, or other location which will be assessable at run-time

assessment at run-time of veridical context information

detecting said occasion of interest when the stored context information is not identical to the veridical context information, and responding in a manner determined by the software designer

updating said stored information once said occasion of interest has been identified

16. the method according to Claim 1 wherein the tendencies of lineages to be copied vs purchased can be estimated by computing sibling to grandchild ratios

17. the method according to Claim 1 wherein information obtained from said lineage analyses can be used to generate instructions which modify or stabilize characteristics of already-released software-instances, whereby the interests of software creators might be advanced

18. the method according to Claim 17 wherein said modification instructions are transmitted from Central Server to software instance during purchasing events

19. the method according to Claim 17 wherein said modification instructions are transmitted from Central Server to software-instance network-based channels of communication

ADD A<sup>1</sup>  
ADD B<sup>2</sup>